



## **Hood Canal Dissolved Oxygen Program Monthly Update** **July 2006**

### **Next HCDOP meeting**

- *When/where*
  - **August 8 from 9:00 am to 12:00 pm** and will be held at the Skokomish Reservation in their new clinic
- *Proposed agenda items for the next meeting*
  - Progress report on Webb Hill Bio-solids monitoring and study design.

### **Scientific Studies**

- *Project update*
  - An HCDOP IAM Science Workshop was held 12 July at UW-Applied Physics Lab in Seattle and attended by about 30 individuals. The goals of the workshop were to identify what we have learned so far and to drill down on some answerable questions that are targeted to being able to give preliminary information to decision makers regarding indications of the relative magnitude of the drivers for impacting the low oxygen situation. Several tasks were identified at the workshop that will be tracked by IAM task leads and co-managers. (Newton/UW;Hannafious, HCSEG).
  - The 6<sup>th</sup> HCDOP-IAM Quarterly Meeting was held on 25 July. Thirty-three people, including personnel from IAM science and management entities, legislative personnel, and Hood Canal business interest, attended the meeting. The minutes have been posted at <http://www.hoodcanal.washington.edu/news-docs/publications.jsp>. (Newton/UW;Hannafious, HCSEG).
  - As part of the HCDOP-IAM Biota task, an acoustic survey to better understand the abundance and distribution of pelagic biota was conducted during a twenty hour period spanning 26-27 July, led by Sandy Parker-Stetter/John Horne (UW-SAFS) and facilitated by Dan Hannafious (HCSEG) aboard the UW-APL R/V Mackinaw. The initial daytime portion of the survey started near the Tahuya river delta and ended south to Seabeck. The nighttime survey retraced the daytime survey in order to compare the differences in distribution within the water column. Preliminary findings will be shared at the HCDOP IAM Biota meeting scheduled for 11 August at UW-APL, as well as reported at future HCDOP IAM Quarterly Meetings. (Newton/UW;Hannafious, HCSEG).
  - As part of the HCDOP-IAM Biota task, experiments on microbial and phytoplankton production/respiration and abundance are being conducted at various stations in Hood Canal by the labs of Gabrielle Rocap (UW-Oceanography), Claire Horner-Devine (UW-SAFS), and Jan Newton (UW-APL). Fieldwork will be conducted 8-9 August in Hood Canal, coordinated with

Hannafious (HCSEG) aboard the UW-APL R/V Mackinaw.  
(Newton/UW;Hannafious, HCSEG).

- Molluscan Study – HCSEG is still in the process of modifying the scope of work for the project as recommended by the scientist panel. There has been no data collected on the project to date. (Toba, DNR)
  - Deepwater Geoduck and Cucumber Surveys – Representative Eickmeyer sent a letter to DNR clarifying the intent of the \$650,000 budget proviso on deepwater geoduck and cucumber surveys. The scope of the project and budget are in the initial stages of development and a contract has not been signed yet. (Toba, DNR)
  - WDFW is working in August on establishing geoduck index stations in central and southern Hood Canal (Hamma Hamma and Tahuya?). Aging of geoduck shells (n=1800) collected in 2005 is nearing completion at the UW and analysis of annuli for elements and stable isotopes is beginning (by Yongwen Gao). (Sizemore, WDFW)
  - During the month of July, WDFW has been conducting a feasibility study in southern Hood Canal (south of Ayock Point) to test alternative methods for estimating the recreational catch of Dungeness crab. Two field-based approaches are being tested. The information will then be used to see if an expansion of the catch can be made. If fishing success is a measure, there is a dramatically reduced abundance of legal male crab in Hood Canal this year. (Sele, WDFW)
- *New information generated by projects*
    - The oxygen inventory for S. Hood Canal is tracking the values seen in 2004, which were the previously lowest on record and concentrations at stations in Lower Hood Canal are consistently very low (<2 mg/L). Four ORCA buoys are currently deployed with three actively reporting data to the HCDOP-IAM website. In the past few months oxygen levels in the deep water at the Twanoh mooring are again below 2 mg/L. Current speed data indicate stronger tidal currents at the Twanoh mooring, but larger net transport at Hoodspout. More marine, watershed, and biota information is summarized in the 6<sup>th</sup> Quarterly Meeting minutes and will be posted shortly in the 5<sup>th</sup> Quarterly Report. (Newton/UW;Hannafious, HCSEG).

### **Corrective Actions**

- *Project update*
  - Simple Techniques II is working on scheduling the fall seminars for landscapers working in the Kitsap and Mason county portions of the watershed and scheduling clinics at area nurseries and garden centers. (King, SeaGrant/Knackstedt, PSAT)
  - The Shore Stewards program is planning on doing 25 site visits with interested members of the Shore Stewards programs. Site visits will address questions and concerns that property owners have, but will also be used to give information about practices that homeowners can adopt to help minimize their nutrient contribution. These will likely take place in the spring of 2007. (Mills, WSU)
  - Highland Excavating completed construction on a new cluster onsite sewage project that will demonstrate the Pirana<sup>TM</sup> proprietary equipment for nitrogen removal capability as part of a PSAT contract. The project involves three homes

on SR 106 in Mason County. The homes share a common septic tank fitted with the Pirana unit, a lift station, and drip irrigation drainfield located away from the shoreline. The new system replaced three individual systems that were located behind shoreline bulkheads.. (Hull, PSAT)

- Jefferson County Environmental Health submitted a draft final report to PSAT on its monitoring of onsite sewage systems. A final report with findings will be available shortly. (Hull, PSAT)
- Duane Fagergren participated in two consultant's work sessions with PUD, county lead staff, and tribal staff on Hoodspout to Skokomish sewerage projects; major meeting scheduled for August 2 with elected officials related to three sub-area sewage projects in the corridor. Will participate on behalf of state agencies. Duane communicated with state and federal agencies on review process and will help coordinate another meeting on the heels of the Skokomish meeting. (Fagergren, PSAT)
- Duane Fagergren worked with Dave Christensen and Jay Watson of the HCCC on contracts for Rehab program (\$1 M in Capital budget); finalized projects; worked with IAC (Laura Johnson, Jim Fox, Neil Aaland) on process required for project management (Prism) and coordinated with HCCC and counties and tribes to get project detail (thanks to Dave C). Duane began discussions with IAC contractor, Phil Trask, hired for this project. (Fagergren, PSAT)
- Duane Fagergren talked with Dick Wallace, Ecy, and Suzanne Skadowski and Tom Eaton, EPA, on Hood Canal sewerage projects. (Fagergren, PSAT)

### **Watershed Planning**

- The Mason and Jefferson Boards of County Commissioners met in a joint session on July 11 to consider the WRIA 16 (Skokomish - Dosewallips) comprehensive watershed plan that was approved by the Planning Unit on May 11 by a unanimous vote of six to zero. This is the culmination of over 6 years' worth of effort on the part of the Planning Unit, including over 125 meetings. The plan contains recommendations for the watershed as well as specific recommendations for Hood Canal. The plan can be accessed at the following Ecology web site: <http://www.ecy.wa.gov/apps/watersheds/planning/16.html> (Wiatrak, Ecology)

### **Outreach**

- *Public education and outreach updates*
  - Over 90 people participated in the first Lower Hood Canal Clean Water Festival on Saturday July 22. The Lower Hood Canal Watershed Coalition and the Puget Sound Action Team sponsored the festival with support from the Washington Sea Grant program. In addition to an overview of the Hood Canal by Lalena Amiotte (Skokomish Tribe) and Duane Fagergren (PSAT) there were presentations on the Hood Canal Dissolved Oxygen Program, storm water management, native plant gardening and septic system maintenance. Eighteen federal, state and county agencies, universities, local organizations, and the Skokomish Tribe provided informative exhibits and expert presentations. There were numerous prize drawings with a grand prize of a \$300 septic tank inspection and pump out. Several prizes were donated by local businesses. (Hager, LHCWC)

- A display was provided at the Mason County fair July 28-30 with a variety of water quality information, landscaping practices and OSS operation and maintenance. Publications were provided by WSU Mason Ext and the Mason County Health Dept. (Piper, WSU)
  - Shore Stewards, the Mason Health Dept and other attended the first of two workshops for shoreline residents interested in the HCCC's Community Nearshore Restoration Program. (Piper, WSU)
  - The *Harbor Seal: Predator or Prey* lecture sponsored by the University of Washington Earth Initiative and Washington Sea Grant Program was well attended. The seminar was offered in late June for community residents to learn more about harbor seals and orca whales in Hood Canal and answered many questions about seal population levels and their habits. (King, Sea Grant)
  - The State of the Oyster Study's July testing was held July 23 from noon to 2:30. Tideland owners submitted their shellfish for testing for fecal coliform and vibrio parahaemolyticus. (King, SeaGrant)
  - WSU Extension, Washington Sea Grant, Mason Conservation District, Jefferson Conservation District and PSAT are collaborating on evaluation for their education projects in Hood Canal. Each groups is identifying measures that track progress towards their collective goal of reducing nutrients in the Canal. (Knackstedt, PSAT)
  - Terry Hull and Emily Piper met with HCWEN members to begin developing consistent messages about onsite sewage system use for regional environmental educators. (Hull, PSAT)
  - WSU Ext., Sea Grant and PSAT will meet in August with local health districts to develop educational messages to use in their outreach to on-site septic system owners. (Knackstedt, PSAT)
  - The Shore Stewards program is in the process of planning workshops for Shore Stewards and other interested citizens on landscaping techniques that should minimize their impact on Hood Canal (minimizing fertilizer use, leaving grass clippings on the lawn instead of putting them in Hood Canal and using native vegetation). These workshops will also address how to identify a failing septic system. In addition the Shore Stewards program has been actively participating in the planning of Jefferson County's Marine Shoreline Landowner workshops to occur on Sept. 30 in Quilcene and Oct. 14 in Port Hadlock. (Mills, WSU)
  - The Shore Stewards program has been present at five community festivals and events so far this year, resulting in 37 new households signed up for the Shore Stewards program this year. (Mills, WSU)
  - Jan Newton was invited to Bodega Bay Marine Lab to meet with REU (NSF's program Research Experience for Undergraduates) students as a Mentor on 4 August. While there, she gave a seminar on the HCDOP-IAM study to the Bodega Lab community, stirring interest from several researchers there. (Newton/UW;Hannafious, HCSEG).
- *Upcoming meeting notices/speaking engagements*
    - August 5: Community Nearshore Restoration Project (CNRP) Workshop will be held at Alderbrook

- August 7: The next meeting of the Lower Hood Canal Watershed Coalition will be held at the North Mason School District Office at 6 PM.
- August 12: Shore Stewards will host a water quality education booth the Taste of Hood Canal in Belfair.
- August 26: Shore Stewards will host a water quality education booth at the Harmony Hill Summerfest in Union.

### **Funding**

- *Funding now available*
  - Ecology has completed negotiation and is completing the signature process for two FY 2006 grant agreements to Mason County. Scopes of work have been identified for the Stormwater Planning for Belfair and Hoodsport Project and the Mason County Septic System Survey & Database Enhancement Project. (McKee, Ecology)

### **Legislative or Congressional action or briefings**

- *Legislative contacts/meetings*
  - Duane Fagergren and Terry Hull, PSAT, met with Rep. Eickmeyer to discuss rehabilitation projects and upcoming ideas for legislation and committee work including the field trips scheduled for August. (Fagergren and Hull, PSAT)

### **Communications**

- *Communications activities*
  - 615 subscribers currently receive the HC News. To increase readership, Emily Piper is working with local Chambers of Commerce and tourism organizations to include a link to the HC News on their web sites and to add the HC News post cards in their information packets.
- *Media contacts or requests*
  - Dan Hannafious and Jan Newton spoke with Chris Dunagan of the Bremerton Sun regarding the status of the HCDOP IAM study. Anne Criss also spoke to Chris Dunagan about Hood Canal.

- *Media coverage*

**'Dead zone' creeping up West Coast  
Fish kills blamed on global warmth**

Bellingham Herald

Jeff Barnard, AP

July 27, 2006

<http://www.bellinghamherald.com/apps/pbcs.dll/article?AID=/20060727/NEWS05/607270372/1001/NEWS>